EPOR

Educational Programming Oriented Robot

New Paradigm of Robot based Education, "EPOR"

EDUCATIONAL
PROGRAMMING
ORIENTED
ROBOT

FEATURES

Open Hardware Support
• Arduino UNO 100% compatible
• Educational contents support via online community

Visual Language based Robot Coding Curriculum
• Optimized for coding-oriented education for beginners
• Visualization and control of robot functions via visual coding

Various Detachable Sensors
• Connectors on chest and bottom of EPOR
• Detachable sensor : IR, Touch, VR
• Embedded sensor : MIC, CDS
• Scratch 2.0, S4A, Ardublock

Camera and Color Tracking
• Bluetooth based wireless image transmission
• Easy color tracking using key mapping

SPECIFICATIONS

Main-board		Compatible with Arduino
Servo motor	Stall Torque	1.8 kg/cm (4.8V), 2.5 kg/cm (6V)
	Operating Speed	1.0 sec/60degree (4.8V), 0.08 sec/60degree (6V)
DC motor	Torque	1.0 kg/cm
	Gear Ration	1:120
	Load Speed	50 RPM / 10 cm/s (3v), 15 cm/s (5v)
Operating Voltage		5V
Communication		UART communication, Bluetooth (v2.0 version)
Weight		810g
LCD output and various sensors		1602 Character LCD RGB LED JPEG cameras Illumination sensor (CDS) Mic Sensors Infrared Sensors (IR) Touch sensor Speaker

254mm

172mm   167mm

❶ Camera   ❹ CDS Sensor/RGB LED   ❼ Digital Input   ❿ I2C Terminal   ⓭ RESET / D13 Switch
❷ 1602 LCD   ❺ Sensor Input X 4   ❽ Analog Input   ⓫ Arduino IO Port   ⓮ DC Motor X 2
❸ RC Servo Motor X 3 ❻ Mic Sensor   ❾ DC IN   ⓬ DIP 2P Switch   ⓯ Battery AA X 4

PRODUCT CONFIGURATION

OPTIONS
• Lithium Ion battery
• Rechargeable adaptor

Autonomous Driving and Line Tracing

Driving with obstacle avoidance and Line Tracing using IR sensors

Motion Control

Servo Motors at Head and Two Arm, Two wheel DC motors

LCD for Text Display

2 Lines, 16 Characters
Letters and Numbers can be displayed

Brightness Measurement

Frontal Brightness sensing using Embedded CDS sensor

Camera Application

Color Object, Face and Hand Gesture Detection, Easy Usage via Key mapping of Result to Visual Language

Sound Detection and Melody Playing

Embedded MIC for Sound Detection and Melody Playing with Detachable SPK